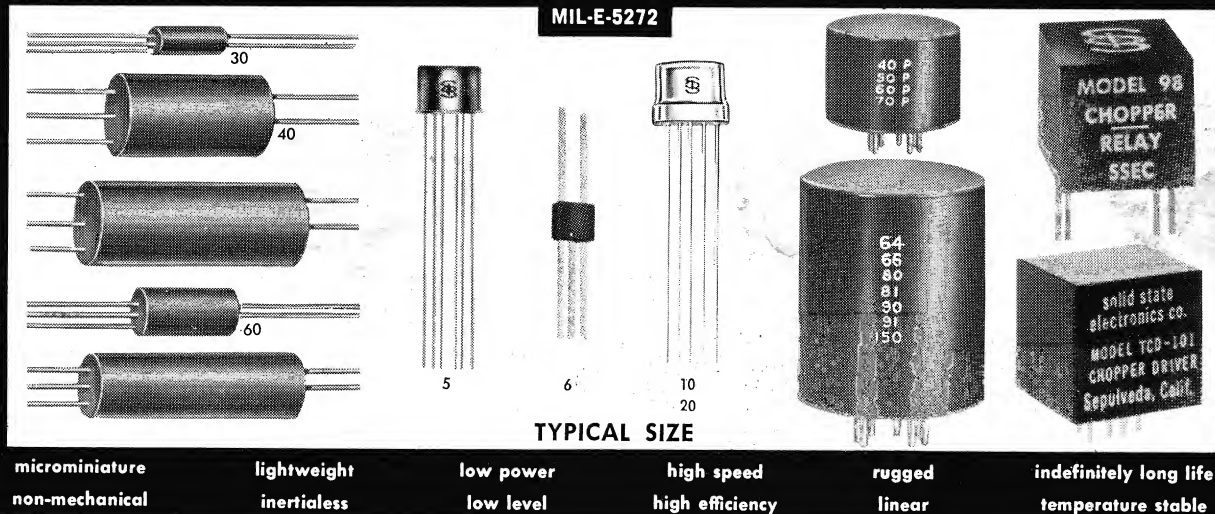


THE MOST COMPREHENSIVE LINE OF SOLID STATE ELECTRONIC CHOPPERS



microminiature
non-mechanical

lightweight
inertialess

low power
low level

high speed
high efficiency

rugged
linear

indefinitely long life
temperature stable

The transistor chopper (or modulator) is a solidly encapsulated unit designed to alternately connect and disconnect a load from a signal source. It may also be used as a demodulator to convert an a.c. signal to d.c. It is capable of linearly switching or chopping voltages over a wide dynamic range which extends down to a fraction of a millivolt and up to 150 volts or more. Unlike mechanical choppers which can only be designed to operate over a narrow and comparatively low frequency range due to mechanical limitations, the transistorized chopper is an inertialess device that can be driven from d.c. to hundreds of kilocycles.

The switching circuitry used operates the transistors in a manner which provides stability and freedom from drift over a wide temperature range. Only carefully selected and matched transistors are utilized.

The Models 5, 6, 10, 20, 30, 40, 40P, 50, 50P, 60, 60P, 70 and 70P are direct-

coupled so as to provide the circuit designer with the most basic chopper from which to synthesize solutions to special circuit problems. The Models 64, 65, 66, 75 and 150 are transformer-coupled for isolation purposes. The Model 150 is for high-level signals. The Models 64 and 66 are for operation from 400 cps and 60 cps sine wave drive at 115 volts a.c. The Models 80, 81, 90 and 91 VIBRACHOPPERS are unique since they require DC rather than AC drive. The Model 98 has complete isolation and insulation between drive and contacts, even with DC drive. The Model TCD-101 Transistor Chopper Driver provides suitable square wave drive voltages for transistorized choppers and synchronous demodulators.

These units are practically immune to the effects of shock and vibration making them ideal for military, space vehicle and portable applications; or where power conservation, miniaturization and elimination of maintenance are a necessity.

CHOPPER MODEL SPECIFICATIONS

Model	Type	Max. Signal Voltage (Volts)	Max. Signal Current (MA)	Drive Frequency Range	Max. Drive Voltage (600:1 Source) (Volts)	Drive Input Impedance (Ohms)	Ambient Temp. Range (°C)	Size (Inches)	Weight (Grams)	Remarks	Price
5	Si	±20	±10	DC to 100 kcps	25 pk-pk	600	-55 to +150	.260 X .362 Dia.	1	Shielded Micro-Min	\$75
6	Si	±20	±10	DC to 100 kcps	25 pk-pk	600	-55 to +150	.2 X .2 X .1	0.5	Hi-Temp Micro-Min	79
10	Si	±20	±10	DC to 100 kcps	25 pk-pk	600	-55 to +150	.210 X .315 X .405	1	Shielded Micro-Min	77
20	Ge	±10	±10	DC to 100 kcps	25 pk-pk	200	-55 to +90	.210 X .315 X .405	1	Shielded Micro-Min	39
30	Ge	±10	±10	DC to 100 kcps	25 pk-pk	200	-55 to +90	.38 X .16 Dia.	½	Micro-Min Hi-Freq	35
40	Si	±20	±40	DC to 50 kcps	40 pk-pk	2K	-55 to +150	.7 X .44 Dia.	2	Sub-Min Hi-Temp	63
40P	Si	±20	±40	DC to 50 kcps	40 pk-pk	2K	-55 to +150	½ X ¾ Dia.	8	Plug-in Hi-Temp	67
50	Ge	±10	±10	DC to 100 kcps	25 pk-pk	200	-55 to +90	1¼ X .44 Dia.	3	Sub-Min Hi-Freq	29
50P	Ge	±10	±10	DC to 100 kcps	25 pk-pk	200	-55 to +90	½ X ¾ Dia.	8	Plug-in Hi-Freq	33
60	Ge	±10	±50	DC to 100 kcps	50 pk-pk	600	-55 to +90	½ X ¾ Dia.	1	Micro-Min Hi-Freq	34
60P	Ge	±10	±50	DC to 100 kcps	50 pk-pk	600	-55 to +90	½ X ¾ Dia.	8	Plug-In Hi-Freq	38
64	Ge	±5	±50	.04 to 12 kcps	300 pk-pk	2K	-55 to +90	1¼ X 1 Dia.	44	115V/400 cps Xfmr-In	85
65	Ge	±3	±50	0.27 to 30 kcps	50 pk-pk	200	-55 to +90	¾ X ¾ Dia.	12	Xfmr-In Plug-In	62
66	Ge	±10	±50	.02 to 12 kcps	300 pk-pk	3K	-55 to +90	1¼ X 1 Dia.	44	115V/60 cps Xfmr-In	94
70	Si	±3	±40	DC to 100 kcps	4 pk-pk	600	-55 to +150	1-1/8 X 5/16 Dia.	2	Hi-Freq Hi-Temp	68
70P	Si	±3	±40	DC to 100 kcps	4 pk-pk	600	-55 to +150	½ X ¾ Dia.	8	Plug-In Hi-Freq	72
75	Si	±2	±30	0.27 to 100 kcps	10 pk-pk	100	-55 to +150	¾ X ¾ Dia.	12	Xfmr-In Hi-Temp	98
80	Ge	±15	±50	1.5 to 6.5 kcps	6 to 32DC	2K	-55 to +90	1¼ X 1 Dia.	32	DC-Drive Plug-In	155
81	Ge	±15	±50	1.5 to 6.5 kcps	6 to 32DC	2K	-55 to +90	1¼ X 1 Dia.	32	DC-Drive DPDT	165
90	Si	±6	±50	1.2 to 3.0 kcps	12 to 32DC	2K	-55 to +150	1½ X 1 Dia.	40	DC-Drive Plug-In	172
91	Si	±6	±50	1.2 to 3.0 kcps	12 to 32DC	2K	-55 to +150	1¾ X 1 Dia.	40	DC-Drive Hi-Temp DPDT	188
98	Si	±20	±2	DC to 5.0 kcps	6 to 12DC or ACpk-pk	1200	-55 to +100	.75 X .75 X .84	16	DC or AC Isolated Drive	135
150	Si	±150	±40	0.27 to 30 kcps	100 pk-pk	300	-55 to +150	1¼ X 1 Dia.	30	Hi-Volt Hi-Temp Xfmr-In	98

Write or phone for specifications and application literature describing above units. For immediate reference we are also listed in your "Visual Search Microfilm File (VSMF)".



SOLID STATE ELECTRONICS CORP.
15321 RAYEN STREET
SEPULVEDA, CALIFORNIA 91343
AREA CODE (213) 894-2271 or 785-4473

OTHER PRODUCTS — SEE EEM SECTION 5200

FREQMETERS (MODULAR & VISUAL)
DC DIFFERENTIAL OPERATIONAL AMPLIFIER
XTAL PULSE GENERATORS
VOLTAGE CONTROLLED OSCILLATORS
TONE OSCILLATORS-TRANSFORMERS
RELAYS (SOLID STATE, TIME DELAY, REED, LIGHT)
MINIATURE TELEMETRY SYSTEMS
PRESSURE TRANSDUCERS
DIGITAL LOGIC MODULES


**SOLID
STATE**

SILICON MODULES

DESIGNED TO MEET MIL-E-5272

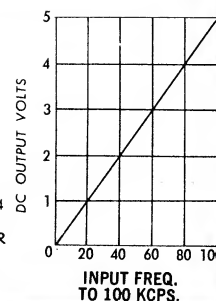
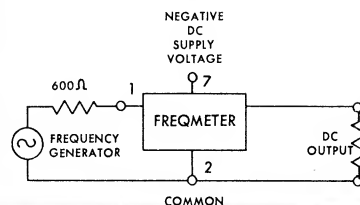
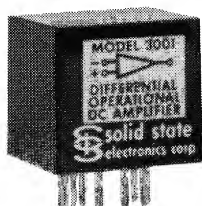
**ANALOG
DIGITAL
TELEMETERING
SWITCHING**

FREQMETER FREQUENCY-TO-DC CONVERTER


ACTUAL SIZE

The FREQMETER is a completely solid state unit which will linearly convert frequency or repetition rate of signals to a proportional DC voltage. This is accomplished with four standard models over an input frequency range extending from zero to 100 kilocycles per second (Model 410—zero to 100 cps; Model 420—zero to 1 kcps; Model 430—zero to 10 kcps; Model 440—zero to 100 kcps).

The FREQMETER has been designed for applications where stability, ruggedness, long life, efficiency and freedom from maintenance are prime requisites. Only silicon semiconductor and reliable components are utilized. Solid encapsulation and miniaturization make this component ideal for military, industrial and portable applications.

-55°C. TO +85°C.

**MODEL
3001**

ACTUAL SIZE

DC DIFFERENTIAL OPERATIONAL AMPLIFIERS

ALL SOLID STATE SILICON
GAIN EXCEEDS 50,000
-55°C. to +125°C.

ULTRA LINEAR
UP TO ± 10 VOLT OUTPUT
ZERO OFFSET ADJUSTMENT
HIGH STABILITY WITH NEGATIVE FEEDBACK
100 DB COMMON MODE REJECTION

OSCILLATORS


**MODEL S-100
FIXED
FREQUENCY
PLUG-IN**

**MODEL S-200
FIXED
FREQUENCY
MOUNTED
PLUG-IN**

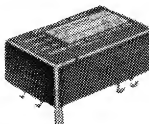
**MODEL C-110
CRYSTAL
HEATER
CONTROLLED
OSCILLATOR**

These silicon transistor sinusoidal oscillators are epoxy encapsulated units designed to create stable sine wave signal sources.

SOLID STATE RELAYS

-55°C. TO +125°C. 2 μ SEC SWITCH

The Model SSR-1285-5050 solid state relay is a silicon transistorized static switching relay with no moving parts. This unit was designed to overcome many of the inherent deficiencies of mechanical relays. For example the solid state relay is an inertialess device capable of over one trillion operations. Actuation time is 2 microseconds and dropout time is 5 microseconds. Actuation frequency can be as high as 50 kcps.



SOLID STATE TIME DELAY RELAYS

-55°C TO +100°C. UP TO 300 SECONDS

The Model 2825-50200 solid state Time Delay Module is a silicon semiconductor static switching relay of all solid state design with no moving parts. This unit was designed to overcome many of the inherent deficiencies of mechanical time delay relays. For example, the solid state relay is an inertialess device capable of over one million operations.



TELEMETERING

MODEL V-510


**VOLTAGE
CONTROLLED
OSCILLATOR**
0°C. TO +85°C.
400 CPS TO
70 KCPS

The transistorized Model V-510 Voltage Controlled Subcarrier Oscillator is designed for accurate conversion of analog DC voltage to a linearly proportional sine wave frequency. Excellent for analog-to-digital conversion.

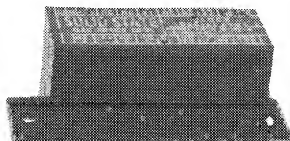


**MODEL OS-1000
PRESSURE-TO-FREQUENCY
CONVERTER**
0°C. TO +100°C.
1.3 TO 22 KCPS

The Osciducer is the new simplified approach to missile, space vehicle and industrial telemetering problems. A temperature stable silicon transistor oscillator has been wedged to a variable inductance diaphragm-type pressure transducer to provide a complete in-line instrumentation package for the measurement of pressure. This approach has resulted in significantly improved reliability, a greater degree of miniaturization and reduced complexity.

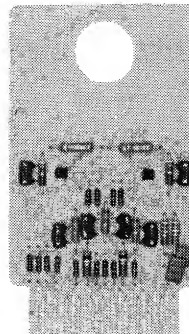
DIGITAL MODULES

10 MEGACYCLE OPERATION
-55°C. TO +125°C.
EQUIVALENT CARDS-BLOCKS
MINIATURE DESIGN
GROUND-AEROSPACE USAGE
HIGH FAN-IN, FAN-OUT



SERIES 1000

J-K (LOGIC) FLIP FLOP
RESET-SET-TRIGGER FLIP FLOP
COUNTER/SHIFT REGISTER FLIP FLOP
AND-OR GATES
SCHMITT TRIGGER
INVERTING AMPLIFIER (NOT)
NON-INVERTING AMPLIFIER
CLOCK OSCILLATOR
SLAVE CLOCK (SHAPING AMP)
FREE-RUNNING MULTIVIBRATOR
ONE-SHOT MULTIVIBRATOR



SERIES 2000 MICROMODS
15 MEGACYCLES -55°C. +125°C.


ACTUAL SIZE

A completely solid state silicon semiconductor design, welded inter-connections, total epoxy embedment, and conservative component ratings assures reliable operation through severe environments. These modules can be used for both static and dynamic logic and will provide a relatively high fan-in, fan-out capability. Module density exceeds one million components per cubic foot making them ideally suited for aero-space system applications.

Write or phone for specifications and application literature describing above units. For immediate reference we are also listed in your "Visual Search Microfilm File (VSMF)".


SOLID STATE ELECTRONICS CORP.
1 5 3 2 1 RAYEN STREET
SEPULVEDA, CALIFORNIA 91343
AREA CODE (213) 894-2271 or 785-4473

SEE OUR AD IN EEM SECTION
5900 FOR DATA ON THE MOST
COMPREHENSIVE LINE OF TRAN-
SISTORIZED CHOPPERS.

SERIES 1000 SOLID STATE SILICON

DIGITAL MODULES

CARDS & BLOCKS

10 MEGACYCLE OPERATION

—55°C. TO +125°C.

ALL SILICON DESIGN

EQUIVALENT CARDS-BLOCKS

GROUND-AEROSPACE USAGE

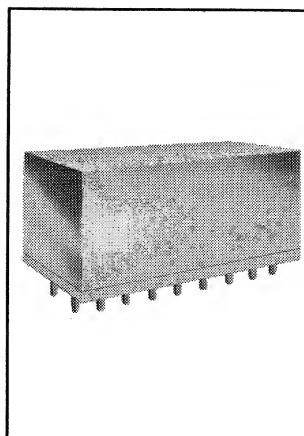
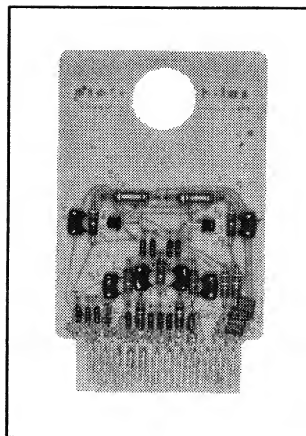
+12, +6, —6 VOLT SUPPLY

RUGGEDIZED CONSTRUCTION

MIL-APPROVED COMPONENTS

MINIATURE DESIGN

HIGH FAN-IN, FAN-OUT



STATIC & DYNAMIC LOGIC

RAPID PROGRAMMABLE LOGIC

SIMPLIFIED INTERCONNECTIONS

FAIL-SAFE DESIGN

SUPPORT ACCESSORIES

FLEXIBLE, RELIABLE DESIGN

THOROUGHLY TESTED

IMMEDIATE AVAILABILITY

REDUCED COST

CONSULTATION SERVICES

DESCRIPTION

The 1000 Series of Digital Logic Modules has been developed by SSEC to facilitate the study, development, construction and checkout of Digital Systems. This Series was developed for military and industrial applications involving ground or aerospace environments. SSEC Systems Engineers, Circuit Designers and Technicians have successfully combined recent advances in Digital Logic, electronic and mechanical design to achieve a higher order of reliability in the field as well as in the laboratory under a wide range of environmental conditions. These modules find direct application in computation, automatic control and data acquisition and processing. All published test parameters are conservatively rated to assure proper operation over the specified frequency and temperature ranges. In addition to the standard circuit modules, SSEC offers a comprehensive line of system and support accessories. As a special service a consultation and coordination group staffed by senior engineers is available and welcomes the opportunity to assist the customer.

The 1000 Series was designed with the user in mind and offers a high degree of reliability, flexibility and performance capability at reduced cost. Design simplicity has been stressed to minimize the number of modules required to perform a given function. **Basic modules are available in either card or block form** with the advantages of complete compatibility and interchangeability between equivalent cards and blocks. The Digital Card modules are primarily intended for general use whereas the Digital Block modules are especially suited to those applications where space and weight must be conserved. By virtue of its total encapsulation, the Digital Block is the more ruggedized version of the Digital Card. According to the users requirements several different temperature and frequency ranges can be supplied. The following is a tabulation of standard logic modules that are available:

CIRCUIT	DIGITAL CARD MODEL NO.	DIGITAL BLOCK MODEL NO.
J-K (Logic) Flip Flop	DCFF1005	DBFF1005
RST (Reset-Set-Trigger) Flip Flop	DCFF1016	DBFF1016
Counter/Shift Register Flip Flop	DCFF1026	DBFF1026
"And"- "Or" Gates	DCAO1031	DBAU1031
"And"- "Or" Gates	DCAO1032	DBAO1032
Supplementary Gates	DCSG1033	DBSG1033
"And"- "Or" Gates	DCAO1034	DBAO1034
Schmitt Trigger	DCST1071	DBST1071
Inverting Amplifier (NOT)	DCIA1112	DBIA1112
Non-Inverting Amplifier	DCNA1132	DBNA1132
Slave Clock (Shaping Amplifier)	DCSC1151	DBSC1151
Clock Oscillator	DCCO1171	DBC01171
(Free Running) Multivibrator	DCMV1192	DBMV1192
One-Shot Multivibrator	DCOS1193	DBOS1193

WRITE OR PHONE FOR BULLETINS DESCRIBING ABOVE UNITS





solid state electronics corp.
15321 rayen st.
sepulveda, calif. 91343

BULK RATE
U. S. POSTAGE
PAID
Permit No. 222
Sepulveda, Calif.

**SOLID STATE ELECTRONICS CORP.**

15321 RAYEN ST. • SEPULVEDA,

CALIFORNIA 91343

(213) 894-2271 (213) 785-4473

PRICE LIST

(April 1, 1966)

SOLID STATE CHOPPERS

Model		Price	Delivery
5	Silicon Microchopper (TO-5 Electrostatically Shielded Case)	\$ 75.00	Stock
6	Silicon Microchopper	79.00	Stock
7	Silicon Microchopper	84.00	Stock
10	Silicon Microchopper (Shielded Case)	77.00	Stock
20	Microchopper (Shielded Case)	39.00	Stock
26	High Frequency Silicon Chopper, Transformer Drive, 5 Megacycles	115.00	Stock
30	Microchopper	35.00	Stock
40	High Temperature Silicon Chopper	63.00	Stock
40P	High Temperature Silicon Chopper (Plug-in version of Model 40)	67.00	Stock
44	Silicon Chopper, Transformer Drive, 6.3 VAC, 400 CPS	89.00	Stock
50	Chopper	29.00	Stock
50P	Chopper (Plug-in version of Model 50)	33.00	Stock
60	Microminiature Chopper	34.00	Stock
60P	Chopper (Plug-in version of Model 60)	38.00	Stock
64	Chopper 400 Cycle Line Driven (Plug-in)	85.00	Stock
65	Chopper with Transformer Drive (Plug-in)	62.00	Stock
66	Chopper 60 or 400 Cycle Line Driven (Plug-in)	94.00	Stock
70	Silicon High Temperature, High Frequency Chopper	68.00	Stock
70P	Silicon (Plug-in version of Model 70)	72.00	Stock
71	Silicon High Temperature, High Frequency, Transformer Drive	87.00	Stock
75	Silicon Chopper with Transformer Drive (Plug-in)	98.00	Stock
150	Silicon, Hi Volt, Hi Temp, Xfmr Drive, Plug-in Chopper	98.00	Stock
171	Silicon Full-Wave Chopper, Plug-in	118.00	Stock
T-78	Chopper Drive Matched Transformer	16.00	Stock
50P 60P 70P	Designers Chopper Kit (Contains one each Model 50P, 60P, 70P)	128.00	Stock
Custom Kits	Any 3 or more different choppers at a 10% discount from above prices		Stock

TRANSISTOR CHOPPER DRIVER

TCD-101	Solid State Silicon Transistor Chopper Driver	98.00	Stock
---------	---	-------	-------

VIBRACHOPPERS

80	SPDT Solid State Chopper with DC Drive	155.00	Stock
81	DPDT Solid State Chopper with DC Drive	165.00	Stock
90	SPDT Solid State Silicon High Temperature Chopper with DC Drive	172.00	Stock
91	DPDT Solid State Silicon High Temperature Chopper with DC Drive	188.00	Stock

DC SIGNAL ISOLATORS

DCI-175	Solid State Silicon DC-DC Signal Isolator	295.00	2 Weeks
DCI-177	Solid State Silicon DC-DC Signal Isolator with Drive	395.00	2 Weeks

CHOPPER-RELAY

98	SPST Solid State Silicon. Completely Isolated Drive (DC to 5 Kcps)	135.00	1 Week
----	--	--------	--------

SOLID STATE RELAYS

1285-5050	SPST Solid State Relay (Silicon High Temperature)	165.00	1 Week
2828-3504	SPST Solid State AC Relay (Silicon High Temperature)	185.00	2 Weeks

FREQUENCY SENSITIVE RELAYS

471	Transistorized Hi-Lo Pass Frequency Sensitive Relay	295.00	2 Weeks
476	Transistorized Band Pass Frequency Sensitive Relay	285.00	2 Weeks

RAYLAYS

651	Incandescent Light-Controlled Resistor Switch (TO-5 Case)	29.00	Stock
661	Neon Light-Controlled Resistor Switch	26.00	Stock

LATCHING RAYLAYS

	Incandescent Light Controlled Solid State Relay		
671-15	15 volts	58.00	1 Week
671-30	30 volts	67.00	1 Week
671-60	60 volts	79.00	1 Week
671-100	100 volts	96.00	1 Week

SOLID STATE TIME DELAY MODULE

2825-50200	SPST Solid State Time Delay Module (Silicon High Temperature)	145.00	1 Week
------------	---	--------	--------

REED RELAYS

7001, 8001 and series 9000.

(See Prices on data sheets)

TRANSFORMERS AND TRANSFORMER DECADE SUBSTITUTION BOX

Series TT-100

(See Prices on data sheet)

TOROIDAL INDUCTORS AND TOROIDAL INDUCTOR DECADE SUBSTITUTION BOX

Series LA, LB, LC, LD, LE

(See Prices on data sheet)

ULTRA HIGH GAIN TRANSISTOR

SST610	High Beta Silicon Transistor (TO-5 Case)	49.00	1 Week
--------	--	-------	--------

DIFFERENTIAL OPERATIONAL DC AMPLIFIER

3001	Solid State Silicon Differential Operational Amplifier	155.00	2 Weeks
------	--	--------	---------

DIFFERENTIAL FREQUENCY MODULE

801	Solid State Silicon Differential Frequency Module	290.00	2 Weeks
-----	---	--------	---------

FREQMETER MODULES

Model		Price	Delivery
410	Solid State Silicon Zero to 100 cps Frequency-To-DC Converter	155.00	Stock
420	Solid State Silicon Zero to 1 kcps Frequency-To-DC Converter	155.00	Stock
430	Solid State Silicon Zero to 10 kcps Frequency-To-DC Converter	155.00	Stock
440	Solid State Silicon Zero to 100 kcps Frequency-To-DC Converter	155.00	Stock
410KF	Solid State Silicon Drive Independent 0-100 Cps. Frequency-To-DC Converter	275.00	Stock
420KF	Solid State Silicon Drive Independent 0-1 kcps Frequency-To-DC Converter	275.00	Stock
430KF	Solid State Silicon Drive Independent 0-10 kcps Frequency-To-DC Converter	275.00	Stock
440KF	Solid State Silicon Drive Independent 0-100 kcps Frequency-To-DC Converter	275.00	Stock

PANEL FREQMETERS

410M	Solid State Silicon Drive Independent Panel Freqmeter 0-100 cps	325.00	3 Weeks
420M	Solid State Silicon Drive Independent Panel Freqmeter 0-1 kcps	325.00	3 Weeks
430M	Solid State Silicon Drive Independent Panel Freqmeter 0-10 kcps	325.00	3 Weeks
440M	Solid State Silicon Drive Independent Panel Freqmeter 0-100 kcps	325.00	3 Weeks

PANEL FREQMETER RELAYS

410MR	Solid State Silicon Drive Independent Panel Freqmeter Relay 0-100 cps	340.00	3 Weeks
420MR	Solid State Drive Independent Panel Freqmeter Relay 0-1 kcps	340.00	3 Weeks
430MR	Solid State Silicon Drive Independent Panel Freqmeter Relay 0-10 kcps	340.00	3 Weeks
440MR	Solid State Silicon Drive Independent Panel Freqmeter Relay 0-100 kcps	340.00	3 Weeks

DIFFERENTIAL FREQMETERS

411	Solid State Silicon Drive Independent 0-100 cps	480.00	1 Week
421	Solid State Silicon Drive Independent 0-1 kcps	480.00	1 Week
431	Solid State Silicon Drive Independent 0-10 kcps	480.00	1 Week

FM DISCRIMINATORS

401-()	Solid State Silicon FM Discriminators for IRIG Channels. Dash Number Same as Channel Number.	835.00	3 Weeks
---------	---	--------	---------

PHASEMETER

791	Solid State Silicon Phasemeter (Phase Detector)	390.00	1 Week
-----	---	--------	--------

OSCILLATORS

S-100	Silicon Transistor Tone Oscillator (LC Controlled). 400 to 50,000 cps.	195.00	1 Week
S-200	Silicon Transistor Tone Oscillator (LC Controlled). 25 to 50,000 cps.	190.00	1 Week
S-300	Silicon Transistor Tuneable Tone Oscillator Frequencies. 25 to 100,000 cps.	175.00	1 Week
C-110	Silicon Transistor Freq. Std. Xtal, Htr. Control. 16 to 100 kcps.	345.00	5 Weeks
TF-120	Silicon Transistor Frequency Standards (Tuning Fork). 50 to 4000 cps.	235.00	3 Weeks

PULSE GENERATORS

PG-111	Silicon Transistor, Crystal Controlled, Pulse Generator		
PG-112			
PG-111N	2,000 to 3,999 cps	675.00	6 Weeks
PG-112N	4,000 to 7,999 cps	625.00	6 Weeks
	8,000 to 15,999 cps	495.00	6 Weeks
	16,000 to 999,999 cps	340.00	5 Weeks
	1 to 20.00 Megacycles	375.00	5 Weeks

VOLTAGE CONTROLLED OSCILLATORS

V-510 ()	Miniature Silicon Transistor Unit for All IRIG Channels. Dash Number Same as Channel Number.		
	IRIG Channels		
	1 to 13	390.00	2 Weeks
	14 to 18	495.00	2 Weeks
	A to E	640.00	2 Weeks
V-521	Microminiature Silicon Transistor Unit	325.00	1 Week

ANALOG-TO-DIGITAL CONVERTER

AD-551	Solid State Silicon Analog-To-Digital Converter	880.00	2 Weeks
--------	---	--------	---------

OSCIDUCERS

OS-1005	Solid State Silicon Pressure-To-Frequency Converter	775.00	7 Weeks
	Differential Type — Add \$55.00; Absolute Type — Add \$95.00		

DEECEDUCERS

DC-2005	Solid State Silicon Pressure-To-DC Converter	795.00	9 Weeks
	Differential Type — Add \$55.00; Absolute Type — Add \$95.00		

PORTABLE FM-FM TELEMETERING SYSTEM

5001	Transmitter, Silicon, Solid Encapsulation	685.00	2 Weeks
5002	Voltage-Controlled Oscillator, Silicon, Solid Encapsulation	325.00	2 Weeks
5003	Power Supply, Solid Encapsulation	35.00	2 Weeks
5004	Receiver	95.00	2 Weeks

Prices quoted are F.O.B., Sepulveda, Calif. Quantity discounts available on request. All prices subject to change without notice.

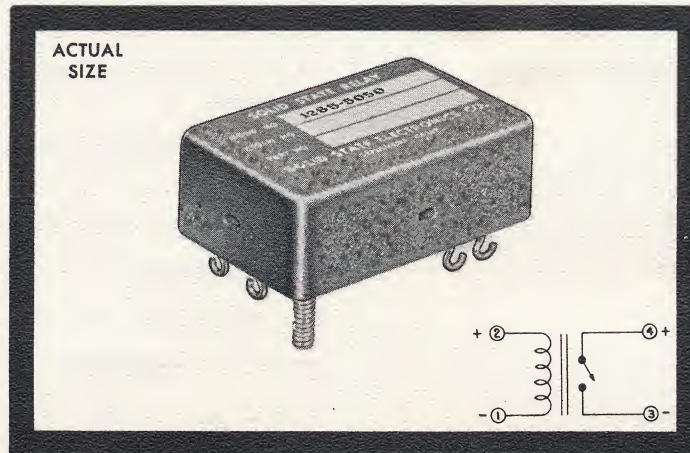
MODEL SSR-1285-5050

SILICON

SOLID STATE RELAY

-55°C. TO +125°C.

SUBMINIATURE
HIGH SPEED
STABLE
RF LESS
UNCRITICAL
UNIFORM
NONMECHANICAL
LONG LIFE
ARCLESS
RELIABLE
FUNGUSPROOF
SILICON



LIGHTWEIGHT
HIGH EFFICIENCY
CHATTERPROOF
TRANSIENTLESS
NONCORROSIVE
ENCAPSULATED
INERTIALESS
SHOCKPROOF
NOISELESS
NONSTICKING
MOISTUREPROOF
MIL-E-5272

5 TRILLION OPERATIONS

2 MICROSECOND ACTUATION

50 KC ACTUATION FREQUENCY

22 TO 32 VOLT ISOLATED DRIVE

50 VOLT 50 MA CONTACT RATING

1 CUBIC INCH VOLUME

DESCRIPTION

The Model SSR-1285-5050 solid state relay is a silicon transistorized static switching relay with no moving parts. This unit was designed to overcome many of the inherent deficiencies of mechanical relays. For example the solid state relay is an inertialess device capable of over 5 trillion operations. Actuation time is 2 microseconds and dropout time is 5 microseconds. Actuation frequency can be as high as 50 kcps.

The utilization of silicon semiconductors provides for reliable operation over a wide temperature range extending from -55°C. to +125°C.

Complete epoxy encapsulation of these units makes them immune to the effects of shock and vibration making them ideally suited for industrial, military, missile, space vehicle and portable applications, or where power conservation, miniaturization and elimination of maintenance are required.



SOLID STATE ELECTRONICS CORPORATION

15321 RAYEN STREET, SEPULVEDA, CALIFORNIA 91343

TELEPHONE: AREA CODE (213) 894-2271 OR 785-4473



SPECIFICATIONS

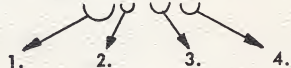
DRIVE VOLTAGE:	22 to 32 volts dc, 28 volts dc nominal. 32 volts maximum.
DRIVE CURRENT:	4 to 6 milliamperes dc, 5 milliamperes dc nominal.
DRIVE POWER:	150 milliwatts nominal.
PICKUP TIME:	1.8 microseconds nominal.
DROPOUT TIME:	5 microseconds nominal.
CONTACT:	Single-pole—single throw, normally open.
MAXIMUM CONTACT RATING:	50 volts, 50 milliamperes.
CONTACT RESISTANCE:	75 ohms closed, 4 megohms open, nominal.
ISOLATION:	Transformer isolation between input and output.
FREQUENCY:	Up to 50 kilocycles per second.
DUTY CYCLE:	Up to continuous.
OPERATIONS:	Five trillion operations minimum.
LIFE:	20,000 hours minimum.
TEMPERATURE:	—55°C. to +125°C.
ACCELERATION:	2000 G.
SHOCK:	1000 G, 11 milliseconds.
VIBRATION:	300 G to 3000 cps.
DIMENSIONS:	0.56x1.00x1.55 inches
WEIGHT:	25 grams.
MOUNTING:	Two 4-40 studs, 0.37 inches long.
TERMINALS:	Solder type feed through terminals.
CONSTRUCTION:	Solid epoxy encapsulation. Black anodized aluminum enclosure. Tin plated steel header.
MIL SPEC:	MIL-E-5272
VARIATIONS:	Other specifications than above are available on request.

APPLICATIONS:

Industry, military, missiles, space vehicles,
aircraft control and instrumentation. Re-
place mechanical relays, low maintenance
equipment, high speed switching, signalling.

MODEL NUMBER DESIGNATION:

MODEL SSR 1285-5050



1. Series 100 at 28 volts nominal
drive voltage.
2. 5 milliamperes dc nominal drive
current.
3. 50 volts dc nominal maximum con-
tact voltage.
4. 50 milliamperes dc nominal maxi-
mum contact current.

